

AMENDMENTS TO THE CLAIMS

IN RE CLAIMS:

Claim 1. (Currently amended): An electronic stitch length regulator comprising: a ~~position~~ speed sensor; a sensor arm; a base plate; an electronic output connector.

Claim 2. (Original): The electronic stitch length regulator of claim 1, wherein the sensor arm is pivotally mounted in the base plate.

Claim 3. (Withdrawn): The electronic stitch length regulator of claim 2, wherein the sensor arm is preloaded longitudinally with a spring element.

Claim 4. (Amended): The electronic stitch length regulator of claim 1, wherein the base plate is mounted below ~~the sewing machine~~ the speed sensor and sensor arm.

Claim 5. (Amended): The method of an electronic stitch length regulator of claim 1, wherein the electronic circuit converts speed of position sensor to electronic resistance measure in Ohms.

Claim 6. (Amended): The method of an electronic stitch length regulator of claim 5 wherein the ~~frequency output of the sensor~~ outputs a frequency ~~comprises~~ comprising of two channels.

Claim 7. (Amended): The method of an electronic stitch length regulator of claim 6 wherein each channel of frequency signal is converted to a voltage respectively.

Claim 8. (Amended): The method of an electronic stitch length regulator of claim 7, wherein the two channels of voltage are added to form a composite total voltage.

Claim 9. (Original): The electronic stitch length regulator of claim 8, wherein the composite total voltage is used as an input signal to a comparator circuit.

Claim 10. (Original): The electronic stitch length regulator of claim 9, wherein the comparator output is dependent on the composite total voltage.

Claim 11. (Original): The electronic stitch length regulator of claim 10, wherein the comparator output controls an opto-isolator integrated circuit.

Claim 12. (Original): The electronic stitch length regulator of claim 11, wherein the output of the ~~optoisleater~~ opto-isolator circuit is connected to a plurality of fixed electrical resistors.

Claim 13. (Original): The electronic stitch length regulator of claim 12, wherein the plurality of fixed electrical resistors are connected to an electrical output connector.

Claim 14. (Original): The electronic stitch length regulator of claim 13, wherein the electrical output connector plugs into the sewing machine foot pedal connector port.